

24

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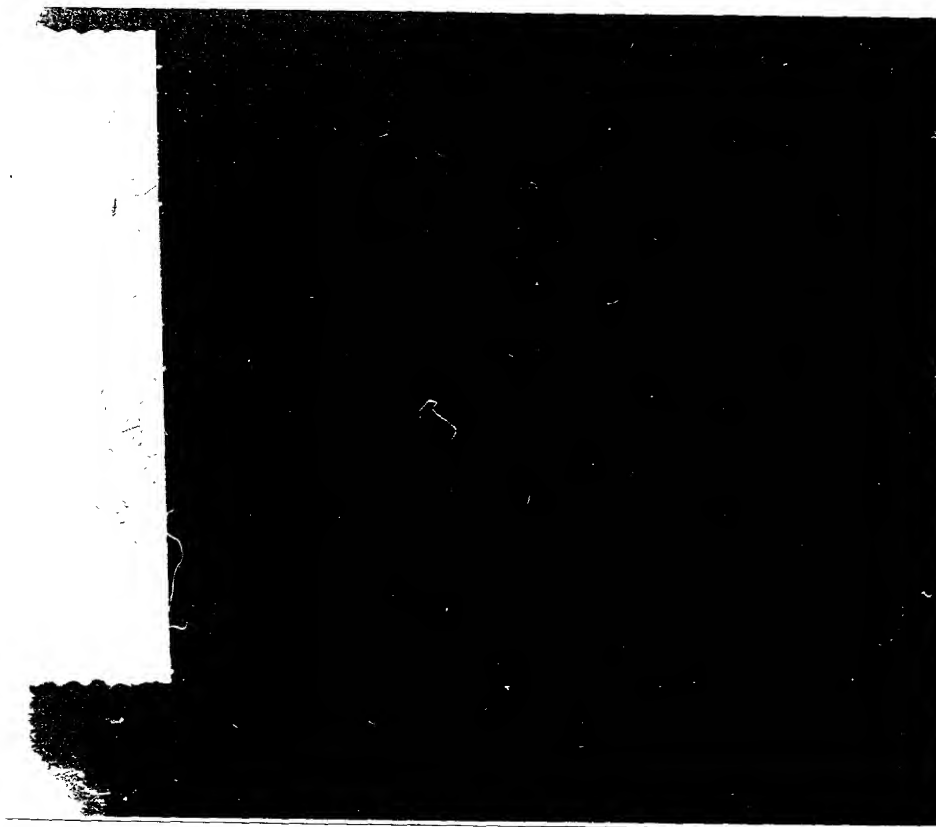


FIG. 1



FIG. 2

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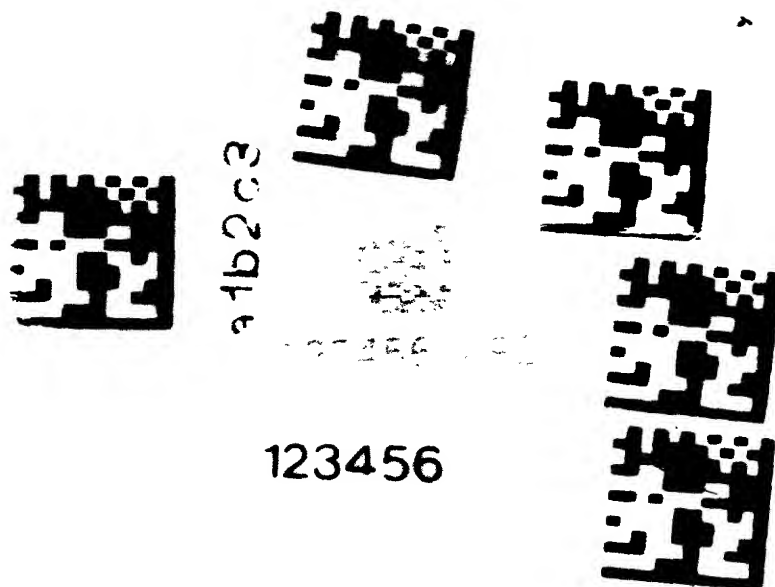
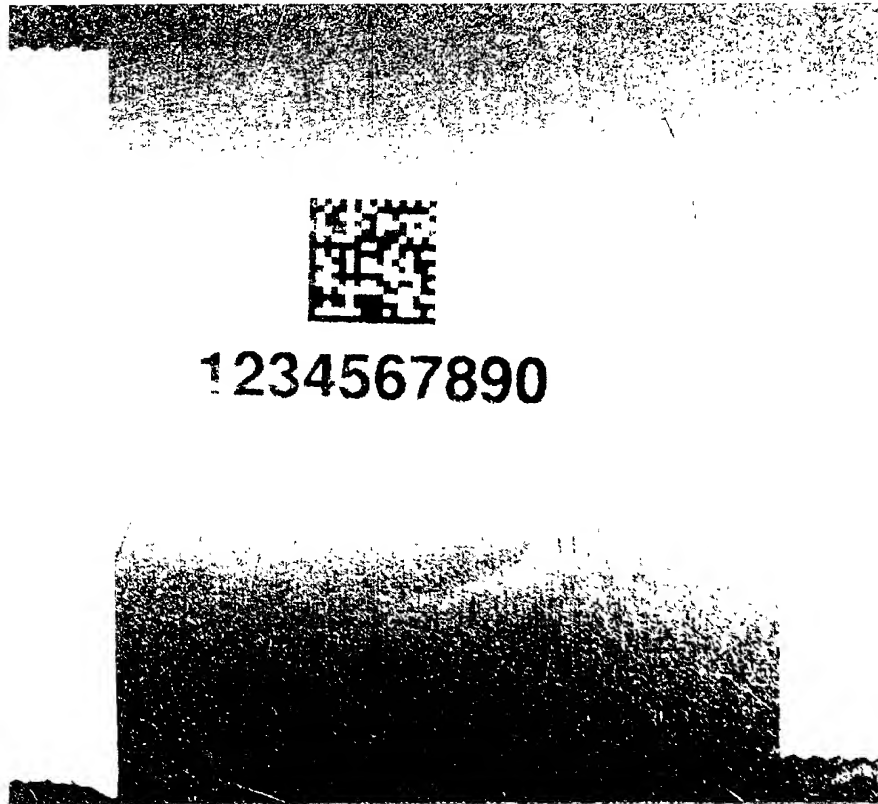


FIG. 4

Title of Invention: High Contrast Surface  
Marking Using Irradiation of Electro-  
Statically Applied Marking Materials  
Inventor's Name: Harrison, Paul  
Serial No: 09/880,391



FIG. 5

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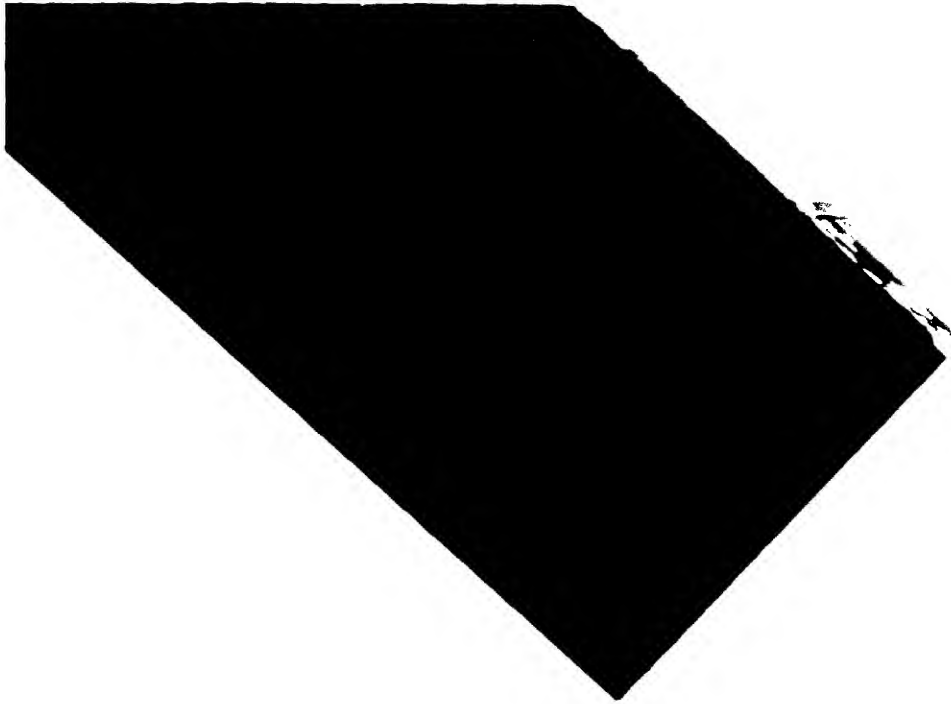


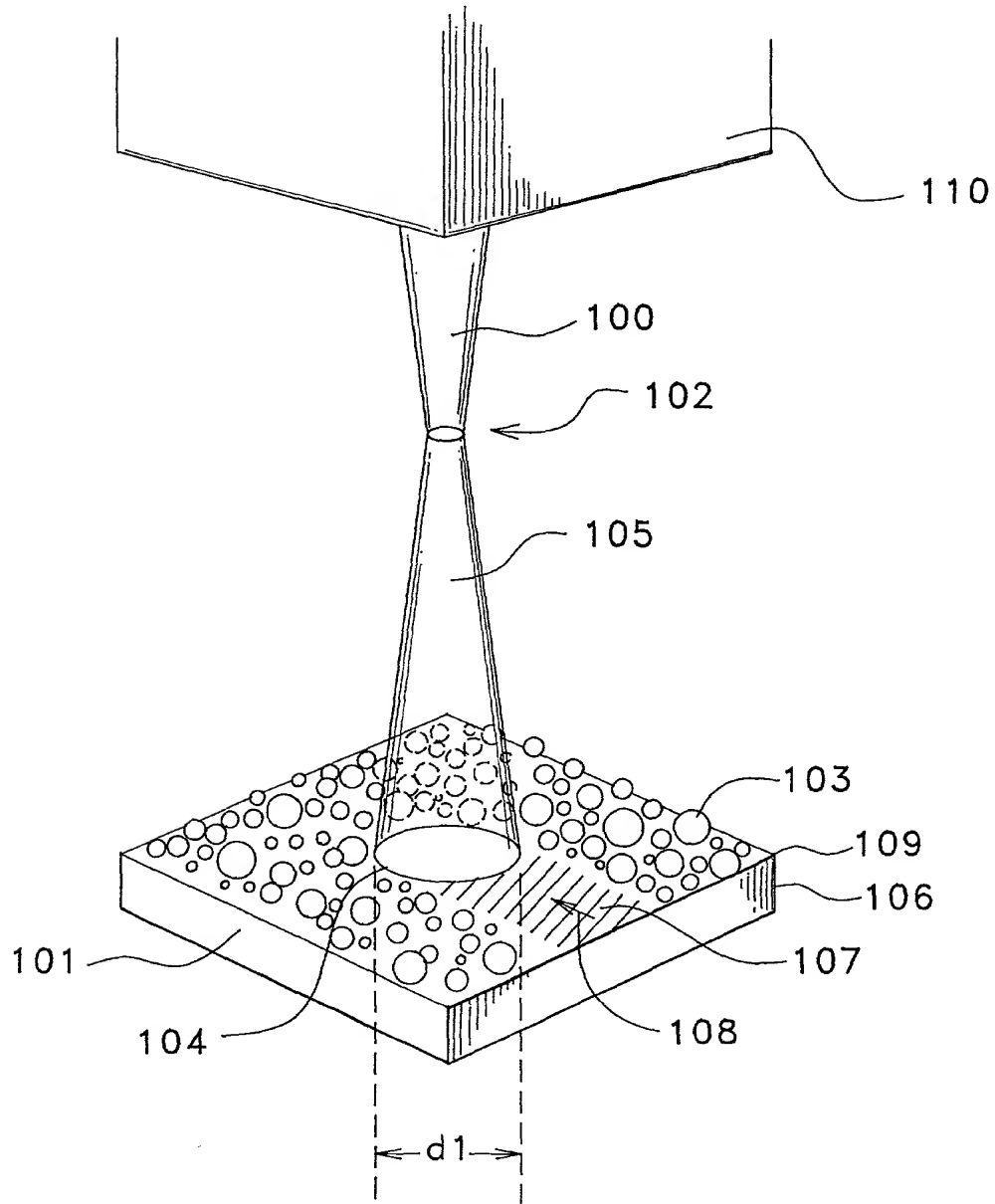
FIG. 6



FIG. 7

<u>Substrate Materials</u>	<u>Marking Materials</u>	<u>Beam Speed</u>	<u>Power (watts)</u>	<u>Freq (Khz/Cw)</u>
Aluminum	Mixed Metal Oxide	200mm/sec	5 watts	CW
Aluminum	Glass Frit	250mm/sec	5 watts	CW
Brass	Mixed Metal Oxide	200mm/sec	5 watts	CW
Ceramic	Glass Frit	200mm/sec	5 watts	CW
China	Glass Frit	200mm/sec	5 watts	CW
Copper	Mixed Metal Oxide	100mm/sec	5 watts	20 KHz
Auto Safety Glass	Glass Frit	200mm/sec	5 watts	CW
CRT Display Glass	Glass Frit	200mm/sec	5 watts	CW
Flat Panel Display Glass	Glass Frit	200mm/sec	5 watts	CW
Microscope Slide Glass	Glass Frit	200mm/sec	5 watts	CW
Nickel	Mixed Metal Oxide	200mm/sec	5 watts	CW
Nylon™	Mixed Metal Oxides	250mm/sec	5 watts	CW
Porcelain	Glass Frit	200mm/sec	5 watts	CW
PVC	Mixed Organic Pigments	200mm/sec	5 watts	CW
Stainless Steel	Mixed Metal Oxide	200mm/sec	5 watts	CW
Stainless Steel	Glass Frit	300mm/sec	5 watts	CW
Teflon™	Mixed Metal Oxides	200mm/sec	5 watts	CW
Tin	Mixed Metal Oxide	200mm/sec	5 watts	CW
Titanium	Mixed Metal Oxide	200mm/sec	5 watts	CW

FIG. 8



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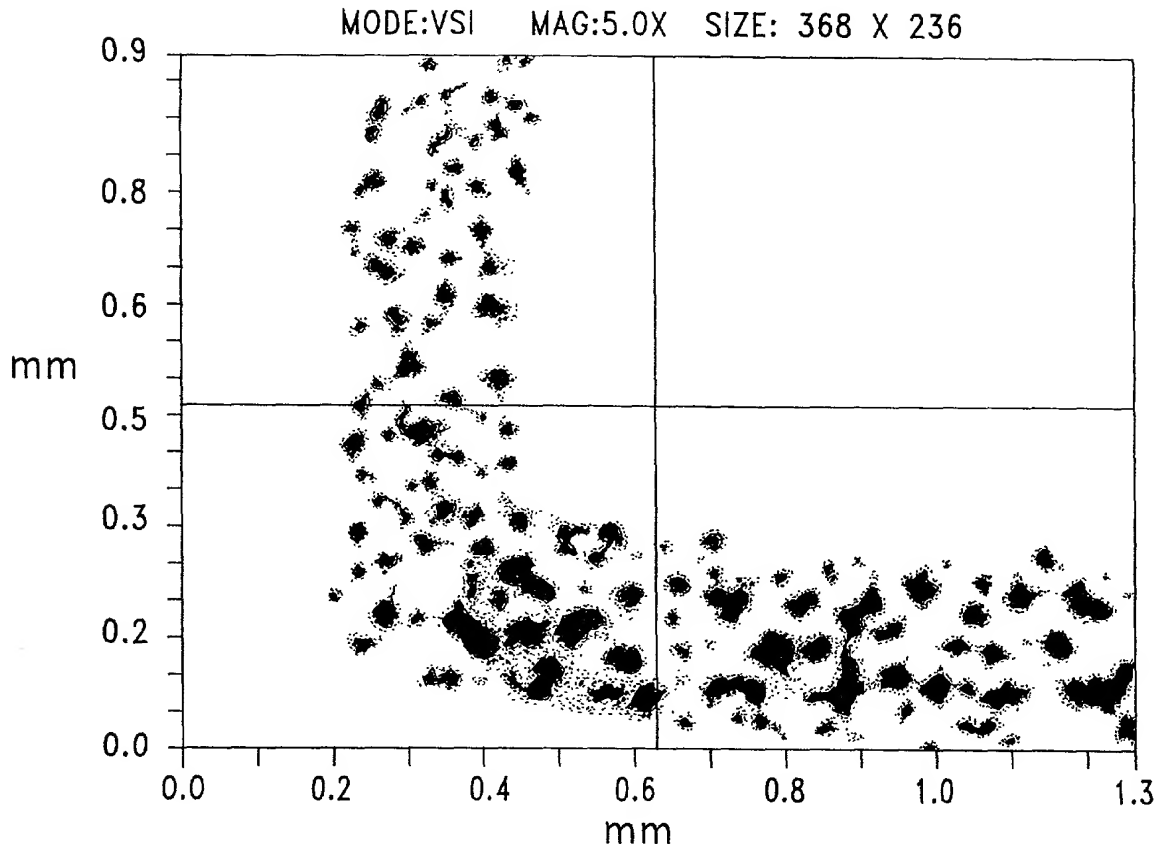


FIG. 10 a

GLASS SLIDE - PORCELAIN/GLASS FRIT

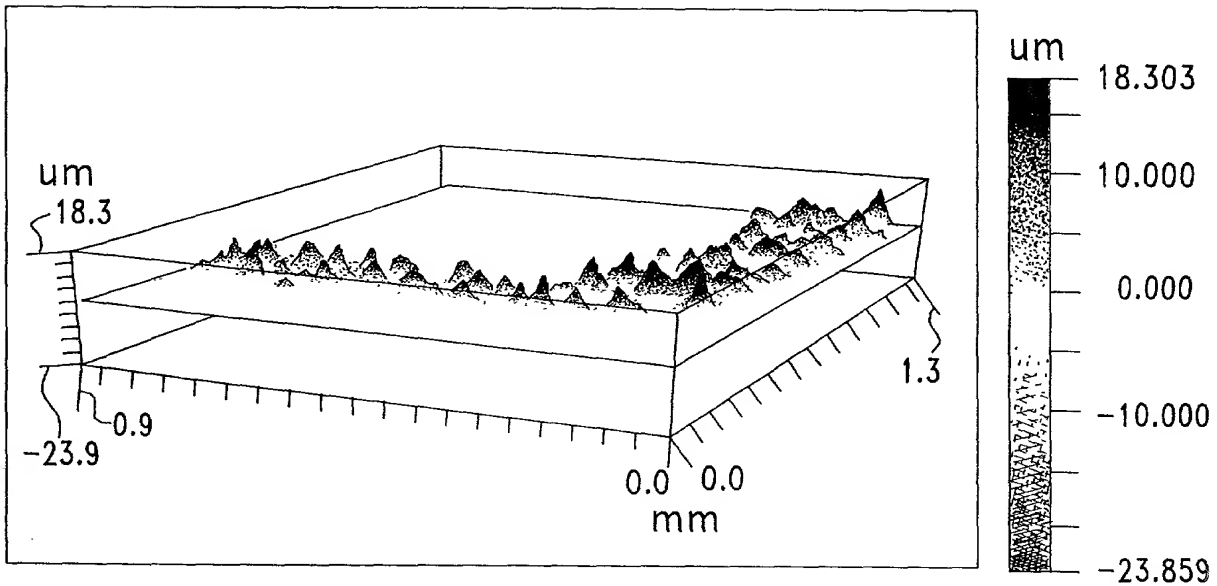
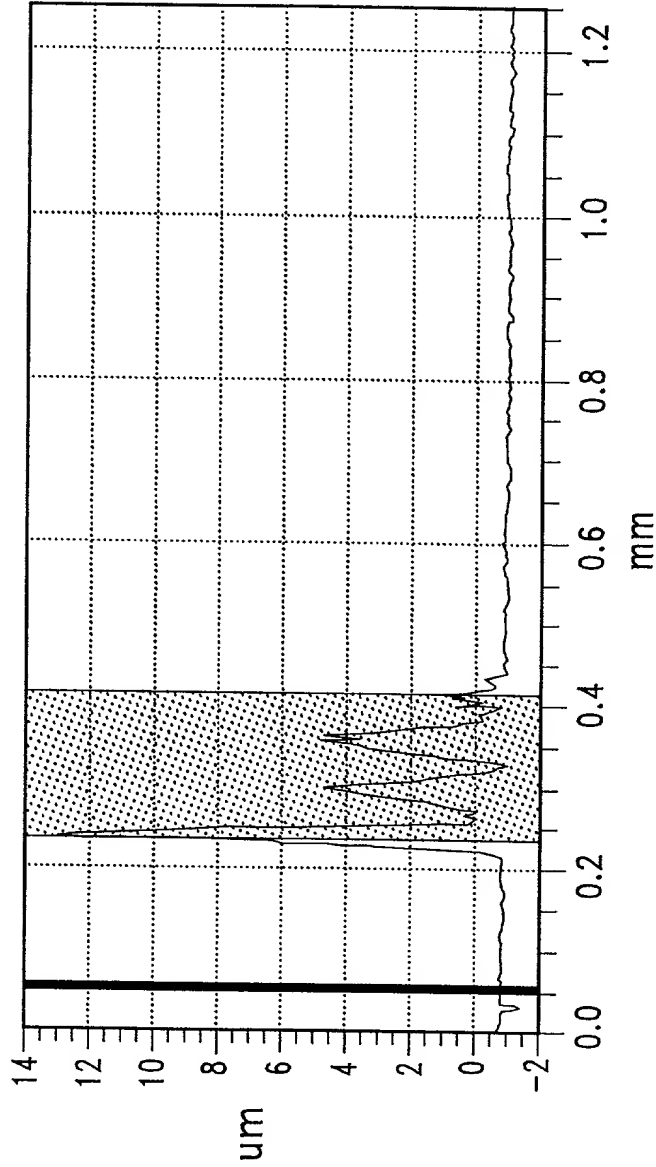


FIG. 10 b

X-PROFILE/2 PT/RADIAL

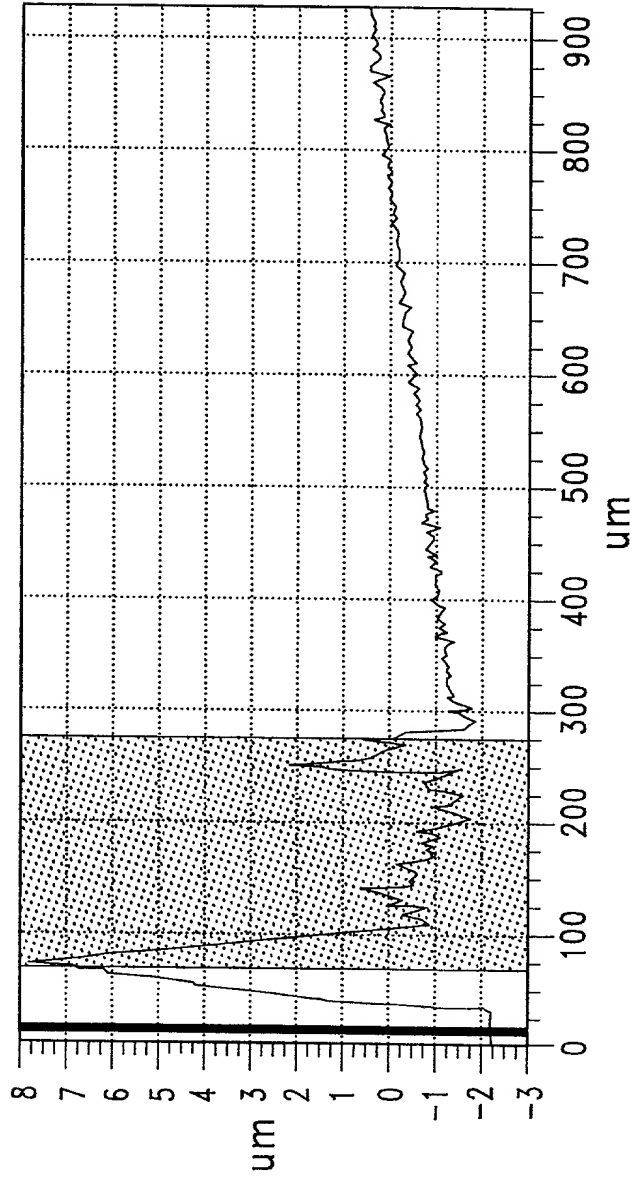


Rq: 2.92 um  
 Ra: 1.97 um  
 Rt: 14.09 um  
 Rp: 13.17 um  
 Rv: -0.92um

L: 0.05 mm -0.83 um  
 R: 0.33 mm 2.23 um  
 D: 0.27 mm 3.05 um  
 Angle: 0.64°  
 Curve: -14.65 mm  
 Terms: None  
 AvgHt: 0.61 um  
 Area 0.17 um<sup>2</sup>

FIG. 10c

Y-PROFILE/CIRCULAR



Rq: 2.85 um  
Ra: 2.44 um  
Rt: 9.96 um  
Rp: 7.79 um  
Rv: -2.16 um

L: 13.93 um    Angle: 0.98°  
R: 170.62 um    Curve: -492.76 um  
D: 156.69 um    Terms: None  
AvgHt: 1.20 um  
Area: 187.84 um<sup>2</sup>

FIG. 10d